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ABSTRACT

The Potential Revenue Index (PRI) emphasizes the per cent of current school revenues that are derived from unequalized local taxation. Its purpose is to measure the extent to which potential school per pupil revenues are equalized by various State school support programs. One can also ask how much additional tax revenue people in low wealth school districts would need to pay to raise their school's per pupil revenues to the State average. The proposed PRI formula for measuring financial equalization uses variables based on the per cent of the State per pupil average expenditure rate attainable in the "key" low wealth school district if it levies the State average supplemental school tax rate. The formula calculations are explained and applied. (Author/DW)

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A POTENTIAL REVENUE INDEX FOR PUBLIC SCHOOLS

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The foundation program concept of public school finance is a compromise between statewide equality on the one hand and unequal local supplementation on the other. The amount of the local supplementation reflects both popular support for public schools and the taxable wealth in the community.

Increases in the level of the foundation program are often used to equalize public school support since such increases reduce the need for local supplements. Sometimes it is necessary to include special cost factors in the foundation program or in state categorical aids in order to ease the burden of high cost programs and services, required in some, but not all, school districts.

If the foundation program and the additional categorical aids were "adequate" to finance a satisfactory public school program, there would be little need for local supplementation. For this reason, the amount of local supplementation in a state is an indicator of the adequacy of its equalized school support program (the foundation program plus state and federal categorical aids).

For example, if in one state 20% of public school current revenues were derived from unequalized local supplementation, and in another state only 10% came from this source, then the state with the smallest percent of revenue from unequalized sources would normally have a more equal program of public school support. This holds true unless the disparity in taxable wealth per pupil among school districts is much greater in one state than in the other. Indeed, if the taxable wealth per pupil were essentially the same in all school districts and appropriate

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adjustments made for unusual cost factors, a high degree of fiscal equality could be achieved even if a large amount of school revenue were derived from local taxation.

Thus, a satisfactory measure of the financial equality of school districts within a state must be based upon two variables--one indicating the disparity in taxable wealth per student (or classroom) among school districts, the other indicating the percent of school revenues derived from unequalized local tax sources.

One measure of the financial equalization of public schools using these two variables is based upon the percent of the state average expenditure rate per pupil (or per classroom) attainable in the "key" low-wealth school district if it levies the state average supplemental school tax rate. The supplemental tax rate is the rate levied in excess of the rate required for the foundation program. The formula for computing the Potential Revenue Index for a school district is:

$$PRI = 1 - U + QU$$

Where U = the percent of all current school revenues in the state derived from unequalized taxation.

Q = the assessed valuation of taxable property per pupil or per classroom in a school district divided by the corresponding state average.

There are two ways to calculate the value U. One is to add the state total of all categorical aids and other supplemental grants to the foundation program to obtain the sum of all equalized school revenues. This sum is then divided by the total of all current school revenues to find the percent of equalized school revenues. From this, the percent of unequalized revenues is obtained by subtraction from 100%.

The other method for calculating U is useful in states in which all school districts participate in a single state foundation program. In this method, the annual state total of all current school revenues derived from local school property taxation is ascertained, and from this amount is deducted the local contribution to the foundation program. The remainder is the amount of current school revenues derived from unequalized local taxation, and it is divided by the total of all current school revenues to obtain the value of U.

The calculation of the value of Q for school districts presents no problem if state-equalized values of taxable property are available for all school districts. Where such information is not available, an "economic index" is sometimes used in the allocation of school funds among school districts. In such states the values of Q may be computed from the economic indices. In either case, the value of Q for the "key" low wealth school district is relatively stable from year to year.

In order to use the Potential Revenue Index to evaluate the degree of equalization in a state school aid system, it is necessary to obtain the Q value for the "key" low wealth school district. Such a district should have the lowest assessed value of taxable property per student in the state, excluding school districts with large amounts of federal tax exempt property and school districts which should be consolidated into larger, more efficient units.

To illustrate the use of the Potential Revenue Index (PRI), assume that the following estimates have been made for U and Q:

1. In the "key" low wealth school district, the assessed value of taxable property per student is 1/3 of the state average assessed valuation per student (Q equals 1/3).

2. Ten percent of all current school revenues in the state come from unequalized local property tax sources (U equals 1/10).

Substituting these values in the formula

$$PRI = 1 - 1/10 + 1/10 \times 13$$

$$PRI = 93.3\%$$

This means that in this state, if the key low wealth school district levies the state average supplemental school tax rate, it will have 93.3% of the state average revenues per student.

The computation of the Potential Revenue Index for a state immediately focuses attention upon the school financial equalization issue. Is the amount of inequality indicated by a PRI of 93.3% acceptable?

To answer this question, evidence concerning the scope of educational services which can be rendered to students in school districts which spend comparable amounts per student needs to be reviewed. If such services tend to be inferior to services provided by school districts spending average amounts per student, then the value for the PRI is probably not acceptable.

Note that for low wealth school districts (Q is less than 1), the Potential Revenue Index is always less than 100%. The index approaches 100% as Q approaches unity or as U approaches zero. Since a Potential Revenue Index of 100% for all districts in a state represents "complete" financial equalization, the formula reflects the fact that this goal could be achieved in either of two ways: (1) by providing full state funding so that no school revenues are derived from local tax sources (that is, U equals zero) or (2) by equalizing the property tax base behind each child by school district reorganization so that Q equals 1 for all school districts. Theoretically, either method could be used to achieve complete equalization.

The purpose of the Potential Revenue Index is to measure the extent to which potential school revenues per pupil are equalized by various state school support programs. It is also possible to ask how much additional taxes people in the "key" low wealth school district would need to pay to have state average revenues per pupil. Since the additional revenues needed for this purpose are usually derived from property taxation, it is necessary to define a new variable, U', as follows:

U' = The state total of all school revenues derived from unequalized local taxation, divided by the total assessed valuation of all taxable property in the state. This quotient is the state average supplemental tax rate and may be expressed in mills per dollar, dollars per 100 dollars, or percent.

It will be noted that U and U' have the same numerator--the state total of public school revenues derived from unequalized local property taxation--but they have different denominators. For U, the denominator is the total of all current revenues for public schools; for U', the denominator is the total assessed valuation of all taxable property in the state.

Using this definition for U' the formula for the Tax Rate Differential is:

$$TRD = (1/Q - 1)\ U'$$

This formula provides an estimate of the supplemental tax rate in addition to the state average supplemental tax rate which must be levied on taxpayers in the hypothetical "key" low wealth school district to obtain state average revenues per pupil.

Assuming that school revenues derived from unequalized local property taxation require a state average tax rate of 5 mills per dollar, and the

value of Q for the "key" low wealth school district is 1/3, the Tax Rate Differential for the key low wealth district is:

$$TRD = (3-1)\ 5 \text{ mills} = 10 \text{ mills}$$

This means that, under these assumptions, the key low wealth school district would need to levy 10 mills more than the state average supplemental school tax rate to obtain state average revenues per student.

Again, the question arises: is this tax rate differential acceptable? Under state law, school tax rates within school districts must be equal, but they may vary from one school district to another. If a significant number of school districts actually levy school tax rates which exceed the state average by 10 mills or more, then presumably the key low wealth school district could do so too. On the other hand, if such above average tax rates are rare, it may be unreasonable to expect the key low wealth district to levy the needed additional tax.

The Potential Revenue Index, along with the Tax Rate Differential, provide two useful measures for the evaluation of existing, as well as proposed, state school finance systems. In most states information available in state departments of education is sufficient to calculate the Potential Revenue Index and the Tax Rate Differential for any school district, including the "key" low wealth district. Moreover, it is possible to estimate these indexes quite accurately for proposed changes in the state school support system.

Since these indexes represent potential revenues from equal supplemental tax rates and additional tax rates required to achieve state average spending, they relate directly to the legal question in the Serrano case. Moreover, they are not statistical abstractions; instead, they are in the form of percents and tax rates, concepts readily understood by legislators. For these reasons, they should be useful tools in school finance reform.

POTENTIAL REVENUE INDEX

Table of Values of Potential Revenue Indexes for School Districts with Indicated Values of Q and U, computed from the formula: PRI = 1 - U + QU

Assessed Value of Taxable Property in a School District as Percent of Corresponding State Average (Q)	Percent of All Public School Current Revenue in a State Derived From Unequalized Local Supplementation (U)					
	0%	5%	10%	15%	20%	25%
0%	100%	95.0%	90.0%	85.0%	80%	75.0%
10	100	95.5	91.0	86.5	82	77.5
20	100	96.0	92.0	88.0	84	80.0
30	100	96.5	93.0	89.5	86	82.5
40	100	97.0	94.0	91.0	88	85.0
50	100	97.5	95.0	92.5	90	87.5
60	100	98.0	96.0	94.0	92	90.0
70	100	98.5	97.0	95.5	94	92.5
80	100	99.0	98.0	97.0	96	95.0
90	100	99.5	99.0	98.5	98	97.5
100	100	100.0	100.0	100.0	100	100.0
110	100	100.5	101.0	101.5	102	102.5
120	100	101.0	102.0	103.0	104	105.0
130	100	101.5	103.0	104.5	106	107.5
140	100	102.0	104.0	106.0	108	110.0
150	100	102.5	105.0	107.5	110	112.5
175	100	103.7	107.5	111.2	105	118.7
200	100	105.0	110.0	115.0	120	125.0

Example: If, in a state in which 10% of school revenues are derived from unequalized local supplementation (U=10%), the "key" high wealth school district has twice the state average taxable wealth per pupil (Q=200%), its PRI would be 110%.

If, in the same state, the "key" low wealth district has 30% of the state average taxable wealth per pupil (Q 30%), its PRI would be 93%. Thus, the PRI of the key low wealth district is 7% below the state average and the PRI of the "key" high wealth district is 10% above the state average. These amounts provide measures of two aspects of the equalization of potential public school revenues within a state.

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